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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DWIGHT ROSS PALMER and ARTHUR RAY ROBERTS

Appeal 2007-3289
Application 10/039,973
Technology Center 2600

Decided: February 20, 2008

Before: KENNETH W. HAIRSTON, JOSEPH F. RUGGIERO, and
KEVIN F. TURNER, *Administrative Patent Judges.*

TURNER, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from final rejections of claims 1-4, 6-12 and 14-16. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants disclose methods and systems for reducing datastream transmission bandwidth by encoding image data within the datastream through a compression algorithm. (Specification 1: 8-11). The application details that items of image data are identified, extracted and subdivided and the items are replaced by unique identifiers, and thereafter the image is

repackaged into a data structure with the reduced image and a decoding table. (Specification 3:13-25).

Independent claim 1, which is deemed to be representative, reads as follows:

1 A method for reducing datastream transmission bandwidth requirements, comprising:

in response to determining that an image data structure is present in a datastream,

extracting said image data stream from said datastream;

dividing said image data structure into one or more subregions;

associating a corresponding identifier with a first selected one of said one or more subregions;

in response to determining that said first selected one of said one or more subregions is substantially identical to a second selected one of said one or more subregions,

replacing said second selected one of said one or more subregions with said corresponding identifier of said first selected one of said one or more subregions;

reducing transmission bandwidth requirements by generating a packaged image, which includes a decoding table comprising said first selected one of said one or more subregions and said corresponding identifier of said first selected one of said one or more subregions in place of said second selected one of said one or more subregions;

inserting said packaged image into said data stream; and

transmitting said modified data stream.

We note that claims 1-24 are presently pending, have been examined and have been finally rejected. The rejections of claims 5, 13 and 17-24 have not been appealed and we consequently affirm the rejections of those claims, as discussed below. Thus, we concern ourselves only with the rejections of claims 1-4, 6-12 and 14-16.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Mehrotra	US 6,571,016 B1	May 27, 2003
Mead	US 6,683,993 B1	Jan. 27, 2004

The Examiner rejected claims 1, 2, 4, 6-10, 12 and 14-16 under 35 U.S.C. § 102(e) as anticipated by Mead. The Examiner also rejected claims 3 and 11 under 35 U.S.C. § 103(a) as unpatentable over Mead and Mehrotra.

Appellants contend that the Examiner erred in indicating that the claimed subject matter would have been anticipated or obvious. More specifically, Appellants have argued that the process of encoding images through generic objects as disclosed in Mead is not the same as the processes claimed in the instant claims. (Br. 8-10). Appellants also argue that the rejection applying Mead and Mehrotra lacked sufficient motivation to combine the references. (Br. 11-13). The Examiner finds that Mead teaches all of the elements of the anticipated claims and that the obviousness rejection is proper. (Answer 12-18).

We affirm-in-part.

ISSUE

Have Appellants shown that the Examiner erred in finding claims 1-4, 6-12 and 14-16 anticipated or rendered obvious in view of the cited prior art references?

FINDINGS OF FACT

1. The application details that items of image data are identified, extracted and subdivided and the items are replaced by unique identifiers. Thereafter, the image is repackaged into a data structure with the reduced image and a decoding table, and transmitted to a receiving, processing station. The transmitted structure is less than the original because repeated subregions in the originals are replaced by the identifiers. (Specification 3:13-25; Fig. 2, elements 200, 208, 210, 212, 213, 220, 222 and 224)

2. The Specification discloses that a packaged image data structure is transmitted from a transmitting device, where the packaged image data structure includes a header that is useful in the proper decoding of the packaged image data structure. The packaged image data structure also contains a decoding table, which includes a series of references and identifiers, and a reduced image, where the reduced image contains the raw data necessary to decode the packaged image. The reduced image includes a series of unencoded image portions and identifiers that will indicate places into which the references should be substituted by the decoding system of the receiving device. (Specification 13:4 - 14:14; Fig. 3, elements 300, 302, 304 and 318).

3. Claims 1 and 9 recite, in part, that the packaged image “includes a decoding table,” claims 2 and 10 recite, in part, that the packaged image is

separated “into an image data structure and a decoding table,” and claims 8 and 16 recite, in part, that a step of recoding the datastream includes replacement markers and “a decoding table for translating the one or more replacement markers during decoding.”

3. Mead discloses a method and apparatus for transferring a data signal which includes a transmitter having an encoder and a receiver having a decoder. The encoder includes a segment selector for identifying a segment from a group of signals, each selected segment comprising a representation of an information quantity. (Abstract; col. 2, l. 66 – col. 3, l. 23; col. 3, l. 56 – col. 4, l. 15; Figs. 1 and 2, elements 12, 16, 18-20, 22, 30, 32, 34 and 46).

4. Mead also discloses that the encoder includes a plurality of encoder libraries, with one of the libraries containing a generic representation corresponding to the information quantity and a symbolic code corresponding to the object. The decoder has a second plurality of libraries that can generate the information quantity as an output in response to matching of the symbolic code transmitted from the encoder. An extracted object may not be recognized by any of the generic objects in the generic library, wherein, the classifier can add any unrecognized objects to the generic library to be used as references for future similar objects. This updating occurs on a timely basis. (Col. 2, l. 66 – col. 3, l. 23; col. 3, l. 56 – col. 4, l. 15; col. 5, ll. 42-58).

5. Mohrotra discloses an apparatus and a method for encoding video frames, where the encoding of video blocks utilizes motion detection, motion estimation and adaptive compression. A recursive segmentation

process is used, where blocks of different sizes are encoded during the segmentation process, for selection of the best block size for ultimate encoding. (Abstract; col. 19, ll. 9-17; Fig. 12a).

PRINCIPLES OF LAW

It is axiomatic that anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984). In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed. Cir. 1992).

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellants to overcome the prima facie case with argument and/or evidence. *In re Mayne*, 104 F.3d 1339, 1342 (Fed. Cir. 1997). “Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007).

The claims on appeal should not be confined to specific embodiments described in the Specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*). During *ex parte* prosecution, claims must be interpreted as broadly as their terms reasonably allow since applicants have the power during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

ANALYSIS

Appellants argue that all of the independent claims recite, in some form, that a packaged image is transmitted in the data stream and the packaged image contains a decoding table used to decode the packaged image, (Findings of Fact 3), and that Mead fails to teach the use of such a decoding table. Rather, Appellants argue, Mead discloses that features are extracted from the data stream and are replaced by codes, where the codes are referenced through a stored and non-transmitted generic library. In other words, while Mead provides a transmission of reduced size, it does so through reference to common, generic libraries and not through a transmitted decoding table. The Examiner finds otherwise.

The Examiner points to the possibility that when images that are repeated in a subject transmission in Mead, and they do not correspond to objects in the generic library, the transmissions are sent with one copy of the “new” object and an identifier for the remaining repeated images in that transmission. While it is true that the generic library in Mead is updated, this updating occurs on a timely basis and not necessarily with the subject transmission. (Findings of Fact 4). Additionally, while Mead could send updates to the generic library as envisioned by the Examiner, we find no

specific support in Mead that the process occurs as stated by the Examiner. Given that the independent claims are rejected as being anticipated by Mead, we do not find the possible workings of the system in Mead to be dispositive.

The Examiner finds that unrecognized objects in Mead, and their corresponding identifiers, are transmitted to the decoder, but the Examiner has not shown this transmission to occur concurrent with the original transmission from whence the unrecognized objects were obtained. All of Appellant's independent claims recite that the packaged image includes a decoding table, not that the packaged image is sent and the decoding table is sent some time later. The Examiner, in the rejection of the independent claims, finds the multiplexed symbolic code portions and the unrecognized portions that make up the serial bit stream in Mead are equivalent to the claimed decoding table. We do not find them to be equivalent, because the 'updates' to the generic library are not necessarily made with the transmission. As such, we do not find that Mead teaches all of the elements of the independent claims on appeal and the rejection of claims 1, 2, 8, 9, 10 and 16 as being anticipated by Mead is in error. The rejection of dependent claims 4, 6, 7, 12, 14 and 15 is also in error by virtue of the dependency of those claims on the independent claims.

With respect to the rejection of claims 3 and 11, those claims depend from claims 1 and 9, respectively. The rejection of claims 3 and 11 also cites Mehrotra, in addition to Mead, but Mehrotra does not teach or suggest the missing elements of claims 1 and 9, i.e. the decoding table, as discussed above. As such, Mead and Mehrotra cannot teach or suggest all of the

elements of claims 3 and 11, and we find the rejection thereof to have been made in error.

CONCLUSION OF LAW

We conclude that Appellants have shown that the Examiner erred in rejecting claims 1-4, 6-12 and 14-16 and we reverse the Examiner's rejections of those claims under 35 U.S.C. §§ 102(e) & 103(a).

We also note that under the "Grounds of Rejection to Be Reviewed on Appeal" section, Appellants appear to indicate that only some of the rejections made in the final Office Action are to be reviewed. However, at other points in the Brief, (Br. 2 and 10), claims not rejected under the two rejections appealed are also addressed. The instant opinion is concerned only with the rejections of claims 1-4, 6-12 and 14-16 that are explicitly appealed, in the Grounds of rejection to be reviewed on appeal, per 37 C.F.R. § 41.37(c)(1)(vi). As such, we affirm the rejections of claims 5, 13 and 17-24 because Appellants have not asked for those rejections to be reviewed. We ask, however, for the Examiner to reconsider the rejections of those latter claims consistent with the discussion of this Opinion.

DECISION

The decision of the Examiner is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

Appeal 2007-3289
Application 10/039,973

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